

A plan to Fly California

*...without ever
leaving the ground.*

Highlights of the

**Draft Program Environmental Impact
Report/Environmental Impact
Statement (EIR/EIS) for the *proposed*
California High-Speed Train System**

A STUDY BY THE CALIFORNIA HIGH-SPEED RAIL
AUTHORITY AND THE FEDERAL RAILROAD ADMINISTRATION



How will you travel from Southern California to the Bay Area in 2020?

High-speed trains could be in your future

Californians will face a massive challenge by the year 2020:

Up to 98 million more intercity* trips – and 11 million more people will mean a greater demand on the state's infrastructure, resulting in more traffic congestion, reduced safety, more air pollution, longer travel times, less reliability and less predictability in intercity travel.

The California High-Speed Rail Authority (Authority) and the Federal Railroad Administration (FRA) have undertaken an environmental study to assess a proposed high-speed train system and other options for meeting future intercity travel demands. Alternatives for intercity travel were evaluated, generally from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego.

The alternatives for serving existing and future intercity trips...

- No Project – reliance on the state's existing transportation systems
- Modal Development – improvements to existing highway and air travel networks
- High-Speed Trains – a new statewide train system, at least 700 miles in length, capable of travel at speeds up to 220 mph

Based on the Draft Program EIR/EIS, high-speed trains

- Would be two-to-three times less costly than expanding highways and airports to serve similar travel demands
- Would improve intercity transportation reliability
- Are projected to carry as many as 68 million passengers annually by 2020 – with the capacity to carry about twice that many passengers
- Would be the most energy efficient of the alternatives
- Would have quick travel times
- Would provide low passenger costs per mile
- Would be safer and more reliable than highway and air travel

High-speed trains could

- Offer a new choice in intercity travel
- Connect to existing airports and transit terminals along high-speed train corridors
- Ease the growing demand on existing highways and airports through 2020 and beyond

* "Intercity" means region-to-region trips, not including daily commute trips

San Francisco
SFO
Redwood City
Palo Alto
Santa Clara
San Jose

Oakland
Union City
Fremont
Gilroy

Los Banos
Sacramento
Stockton

Modesto
Merced

Fresno
Tulare County

Kings County
Bakersfield

Palmdale
Sylmar

Burbank
Los Angeles

LAX
Norwalk

Anaheim
Irvine

East San Gabriel Valley
Ontario Airport

Riverside
San Bernardino

Temecula
Escondido

Mira Mesa
University City

San Diego

No Project Alternative

The state’s existing transportation systems with planned improvements

This alternative consists of the state’s intercity transportation system (highway, air and conventional rail) as it existed in 1999-2000, and as it would be in 2020 with the addition of transportation projects currently programmed for implementation (already in funded programs/financially constrained plans), including:

- State Transportation Improvement Program
- Regional Transportation Plans for highways and public transit
- Airport improvement plans
- Intercity passenger rail plans

Study Results

Would not meet intercity travel needs projected for 2020 as population continues to grow

- Highway capacity would be insufficient to accommodate projected intercity travel growth in the regions that would be served by the proposed high-speed train system
- Many of the state’s airports already are at or near capacity and could become severely congested under this alternative
- Highway congestion and airport delays would continue to increase, hindering the economy and eroding California’s quality of life

Would contribute to environmental degradation

- There would be negative impacts on traffic: increased congestion, decreased mobility and reduced reliability and safety
- Degradation of air quality and increased energy demand

Total “door-to-door” travel time from Los Angeles to San Francisco

- Highway travel time would increase by one hour in 2020
- Air travel time would increase by 30 minutes in 2020
- Existing conventional rail travel time 10:05 (requires two bus transfers)

estimated total travel times “door-to-door” between cities by auto, air and high-speed train in 2020

city pairs downtown to downtown	auto no project alternative	air no project alternative		high-speed train alternative optimal express times	
	total	line haul*	total	line haul*	total
los angeles to san francisco	7:57	1:20	3:32	2:25	3:20
los angeles to fresno	4:30	1:05	3:02	1:12	2:23
los angeles to san diego	2:49	0:48	3:00	1:13	2:16
los angeles to san jose	6:50	1:00	3:14	1:49	2:52
sacramento to san jose	2:40	no service	no service	0:50	1:53

*actual time in plane or train

two

Modal Alternative

Additional improvements to existing highway and air travel systems

This alternative consists of potentially feasible improvements to existing highways and airports sufficient to serve at least 68 million person trips annually. While these improvements are not proposed or recommended, they represent theoretically feasible options and include:

- 2,970 additional lane-miles on intercity highways statewide, which would include at least two and sometimes four additional highway lanes along selected intercity highways
- Nearly 60 new gates and five new runways statewide – equivalent to two new Ontario International Airports
- No increased transportation choices or improved connectivity
- Little or no sustainable capacity beyond the 68 million trips

Study Results

Would help to meet the need for intercity travel into the future, but with significant disadvantages

- Would be less safe and less reliable than the proposed high-speed train alternative
- Congestion would still increase on highways and at airports compared to existing conditions as well as congestion and travel delays on streets and highways leading to and from airports
- Highway and air transportation improvements would result in reduced travel times and congestion as compared to the No Project Alternative
- As compared to the No Project Alternative, employment would be expected to increase by 250,000 and urbanized area by 65,000 acres between 2002 and 2035
- Would cost \$82 billion (2003 dollars) – more than two times more expensive than the high-speed train alternative

Would have the potential for significant negative environmental impacts

- Increased energy use and dependence on petroleum
- Increased emissions of air pollutants
- Impacts on property and land uses
- Increased suburban sprawl
- Impacts to wetlands and biological resources
- Effects on cultural resources, such as historic sites
- Impacts on water quality
- Impacts on park lands



Total “door-to-door” travel time from Los Angeles to San Francisco

- Highway travel time would increase from the existing 6:57 in 2000 to 7:16 in 2020
- Air travel time would increase from the existing 3:20 in 2000 to 3:27 in 2020



three

High-Speed Train Alternative

A new statewide transportation network capable of traveling at 220 mph connecting California's major metropolitan areas

This alternative consists of a new high-speed train system approximately 700 miles long that would deliver predictable, consistent and competitive intercity travel.

- State-of-the-art electrically powered high-speed steel-wheel-on-steel-rail technology with automatic train control
- Up to 68 million passengers a year by 2020
- Exclusive tracks for most of the system, fully grade-separated, either in an open trench or tunnel, at-grade, or on an elevated guideway, depending on terrain and physical constraints
- Most alignments within or adjacent to existing rail or highway right-of-way
- New and upgraded stations, with connections to major airports

Study Results



Would help to meet the need for intercity travel into the future

- Safer, more reliable than highway or air travel
- A new mode of transportation that would increase connectivity and accessibility to existing transit systems and airports
- Quick, predictable, consistent travel times that would be sustainable over time
- Improved travel options in parts of the state with limited bus, rail and air transportation service
- Employment opportunities expected to increase by 450,000 over the No Project Alternative; however, urbanization decreases by 2,600 acres compared to the No Project Alternative between 2002 and 2035
- Congestion would still increase on highways and at airports as compared to existing conditions
- Reduction of total travel times for all transportation modes as a result of traffic diversion to high-speed trains
- Cost to construct the entire system – \$33 to \$37 billion (2003 dollars)
- Passenger cost lower than auto or air travel for the same intercity markets
- Diverting trips to high-speed trains would reduce congestion on highways and for air travel

Would have the potential for significant negative environmental impacts

- Impacts on property and land uses
- Impacts to wetlands and biological resources
- Impacts to cultural resources, such as historic sites
- Noise and vibration impacts
- Impacts to farmlands
- Impacts to park land and water quality

Would provide environmental benefits compared with the No Project and Modal Alternatives

- Decreased energy consumption
- Reduced air pollutant emissions and improved air quality
- Would use less land than would be needed to expand existing highways and airports
- Would provide opportunities to plan for transit-oriented growth to meet future demands
- Fewer environmental impacts overall on sensitive habitats and water resources (floodplains, streams and wetlands) than the Modal Alternative
- For longer distance intercity travel, high-speed trains would provide “door-to-door” travel times comparable to air transportation and less than one-half as long as highway travel times
- For intermediate intercity markets such as Fresno to Los Angeles, high-speed trains would provide considerably quicker “door-to-door” travel times than either air or highway transportation options
- Would provide additional capacity for future generations

Total “door-to-door” travel time from Los Angeles to San Francisco

- Highway travel time would increase from the existing 6:57 in 2000 to 7:36 in 2020
- Air travel time would increase from the existing 3:02 in 2000 to 3:26 in 2020
- High-speed train travel time would be 3:20 in 2020

EIR/EIS Prepares Way For Meeting California's Transportation Needs

220 mph train system would link major California cities

The California High-Speed Rail Authority (the Authority) has proposed high-speed train service for intercity travel in California between the major metropolitan centers of the San Francisco Bay Area and Sacramento in the north, through the Central Valley, to Los Angeles and San Diego in the south. The proposed high-speed train system is projected to carry as many as 68 million passengers annually by the year 2020.

The Authority adopted a Final Business Plan in June 2000, for an economically viable high-speed train system capable of speeds in excess of 200 miles per hour on a mostly dedicated, fully grade-separated track with state-of-the-art safety, signaling and automated train control systems.

To comply with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), a Draft Program EIR/EIS has been prepared. The Authority is both the project sponsor and the lead agency for purposes of the state CEQA requirements. The Federal Railroad Administration (FRA) is the federal lead agency for compliance under NEPA.

Preparation of the Draft Program EIR/EIS by the Authority and the FRA has involved more than 30 months of identification, planning, review and evaluation of alternatives. Seventeen public scoping meetings, plus numerous briefings and presentations to large and small groups, were conducted during the preparation of the Draft Program EIR/EIS.

The Draft Program EIR/EIS document includes:

- A full description of the alternatives
- Evaluation of potential environmental impacts for each alternative
- Identification of general mitigation strategies for the proposed high-speed train alternative
- Discussion of potential high-speed train alignment and station location options

The Draft Program EIR/EIS identifies high-speed trains as the preferred alternative that could shape California's intercity transportation future:

- A completely new and separate intercity transportation alternative to augment existing air, highway and conventional rail travel
- Quick travel times
- Better for the environment than only expanding highways and airports
- Proven, 22-year safety record in Europe and Japan
- Capable of carrying 68 million passengers a year by 2020
- Low passenger travel cost per mile

California's New High-Speed Train

Bringing California closer together

The Draft Program EIR/EIS considers several potential alignment and station location options

Alignment options include:

Northern Mountain Crossing

Through the Pacheco Pass (SR152), or a Diablo Range northern crossing more directly aligned with San Jose.

Southern Mountain Crossing

Through the Tehachapi Mountain Range between Los Angeles and Bakersfield via the I-5 corridor or a crossing through Palmdale and the Antelope Valley.

Bay Area

Service options to the Bay Area along the Peninsula to San Francisco and/or the East Bay to Oakland.

Central Valley

Service along or near the Highway 99 corridor from Bakersfield to Sacramento and the Bay Area.

Service to San Diego (Inland)

Through the Inland Empire via the I-215/I-15 corridor to either downtown San Diego or Qualcomm Stadium.

Service to San Diego (Coast)

Transfer to LOSSAN rail corridor in Los Angeles or direct service to Orange County with a transfer in either Anaheim or Irvine for service to San Diego on Surfliner trains using an improved LOSSAN rail corridor.

Shared Use and Intermodal Connections

Service to the urban centers on shared tracks with other passenger rail services at moderate speeds in heavily urbanized areas (i.e., San Jose to San Francisco and Los Angeles to Orange County).

Potential direct link to Los Angeles International Airport (LAX).

Potential station connections to San Francisco International Airport, Oakland Metropolitan International Airport, Norman Y. Mineta San Jose International Airport, Burbank-Glendale-Pasadena Airport, Ontario International Airport and San Diego International-Lindbergh Field.

Potential station connections at major transit hubs in California's metropolitan areas.



Next Steps in the Environmental Process for the Proposed High-Speed Train System

- Public release and 90-day review of the Draft Program EIR/EIS
- Hearings held in affected regions
- Public submits comments on Draft Program EIR/EIS at hearings or in writing
- The Authority and FRA prepare Final Program EIR/EIS that may identify preferred alignment and station options and includes responses to comments
- Determine whether to advance high-speed train system to next phase – Project Development and Project Environmental Analysis Phase

Check out the California High-Speed Rail Authority's Web site
for the Draft Program EIR/EIS and related technical reports.
www.cahighspeedrail.ca.gov

List of cities where libraries will have document available:

Anaheim	Gilroy	Norwalk	Riverside	San Jose
Bakersfield	Irvine	Oakland	Sacramento	Santa Clarita
Burbank	Los Angeles	Oceanside	San Clemente	Stockton
Escondido	Merced	Ontario	San Diego	Sylmar
Fremont	Modesto	Palmdale	San Francisco	Temecula
Fresno	Mountain View	Palo Alto	San Gabriel	Tulare

The Draft Program EIR/EIS is available for viewing in libraries
and can be obtained on CD by contacting the
California High-Speed Rail Authority
at (916) 322-1419



CALIFORNIA HIGH-SPEED RAIL AUTHORITY



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of Transportation
Federal Railroad
Administration